



Product: <u>1700A</u> ☑

Category 5E+ Cable, 4 Bonded-Pairs, U/UTP, CMR

Product Description

Category 5E+ Premise Horizontal Cable (350MHz), 4 Bonded-Pairs, 24 AWG Solid Bare Copper Conductors, U/UTP, Riser-CMR, PVC Jacket

Technical Specifications

Product Overview

| Suitable Applications: | Premise Horizontal Cable, Ethernet 1000BASE-T, Ethernet 100BASE-TX, Ethernet 10BASE-T, PoE++, PoE+, PoE |
|------------------------|--|
| Patent: | This product has one or more applicable patents. More information on patents can be found at https://www.belden.com/patents. |

Construction Details

Conductor

| Size | Stranding | Material | No. of Pairs |
|--------|-----------|------------------|--------------|
| 24 AWG | Solid | BC - Bare Copper | 4 |

Insulation

| Material | | Color Code | | | | |
|-----------------|------------|--|--|--|--|--|
| PO - Polyolefin | White/Blue | White/Blue Stripe & Blue, White/Orange Stripe & Orange, White/Green Stripe & Green, White/Brown Stripe & Brown | | | | |
| Bonded-Pair: | | Yes | | | | |

Outer Jacket

| Material | Nom. Diameter | Ripcord |
|-------------------------------------|--------------------|---------|
| PVC - Polyvinyl Chloride | 0.202 in (5.13 mm) | Yes |
| Overall Cable Diameter Nominal): | 0.202 in (5.13 m | m) |

Electrical Characteristics

Electricals

| Max. Conductor DCR | Max. Capacitance Unbalance |
|---------------------------|----------------------------|
| 90 Ohm/km (27 Ohm/1000ft) | 66 pF/100m |

Delay

| Frequency | Max. Delay | Max. Delay Skew | Nom. Velocity of Prop. |
|-----------|---------------|-----------------|------------------------|
| 100 MHz | 537.6 ns/100m | 25 ns/100m | 70% |

High Frequency

| Frequency [MHz] | Max. Insertion Loss (Attenuation) | Min. PSNEXT [dB] | Min. PSACR [dB] | Min. PSACRF (PSELFEXT) [dB] | Min. RL (Return Loss) [dB] | Max./Min. Input Impedance (unFitted) [Ohm] | Max./Min. Fitted Impedance [Ohm] | Min. TCL [dB] | Min. ELTCTL [dB] |
|--------------------|--------------------------------------|---------------------|--------------------|--------------------------------|-------------------------------|---|-------------------------------------|------------------|---------------------|
| 1 | 2.0 dB/100m | 69.3 | 67.3 | 65.8 | 20.0 | 100 ± 12 | 105 ± 10 | 40.0 | 35.0 |
| 4 | 4.0 dB/100m | 60.3 | 56.3 | 53.8 | 23.0 | 100 ± 12 | 100 ± 10 | 40.0 | 23.0 |
| 8 | 5.7 dB/100m | 55.8 | 50.1 | 47.7 | 24.5 | 100 ± 12 | 100 ± 10 | 40.0 | 16.9 |
| 10 | 6.4 dB/100m | 54.3 | 47.9 | 45.8 | 25.0 | 100 ± 12 | 100 ± 10 | 40.0 | 15.0 |
| 16 | 8.1 dB/100m | 51.2 | 43.1 | 41.7 | 25.0 | 100 ± 12 | 100 ± 10 | 38.0 | 10.9 |
| 20 | 9.1 dB/100m | 49.8 | 40.7 | 39.8 | 25.0 | 100 ± 12 | 100 ± 10 | 37.0 | 9.0 |
| 25 | 10.2 dB/100m | 48.3 | 38.2 | 37.8 | 25.0 | 100 ± 15 | 100 ± 10 | 36.0 | 7.0 |
| 31.25 | 11.4 dB/100m | 46.9 | 35.5 | 35.9 | 25.0 | 100 ± 15 | 100 ± 10 | 35.1 | |

| 62.5 | 16.4 dB/100m | 42.4 | 26.0 | 29.9 | 25.0 | 100 ± 15 | 100 ± 10 | 32.0 | |
|------|--------------|------|------|------|------|----------|----------|------|--|
| 100 | 21.0 dB/100m | 39.3 | 18.3 | 25.8 | 25.0 | 100 ± 15 | 100 ± 10 | 30.0 | |
| 155 | 26.6 dB/100m | 36.4 | 9.8 | 22.0 | 19.0 | 100 ± 18 | 100 ± 10 | 28.1 | |
| 200 | 30.4 dB/100m | 34.8 | 4.4 | 19.8 | 19.0 | 100 ± 18 | 100 ± 10 | 27.0 | |
| 250 | 34.4 dB/100m | 32.3 | | 17.8 | 18.0 | 100 ± 20 | 100 ± 10 | 26.0 | |
| 300 | 38.0 dB/100m | 28.1 | | 14.3 | 18.0 | 100 ± 20 | 100 ± 10 | | |
| 350 | 41.4 dB/100m | 27.1 | | 12.9 | 17.0 | 100 ± 20 | 100 ± 10 | | |
| 400 | 44.5 dB/100m | 26.3 | | 11.8 | 17.0 | 100 ± 22 | 100 ± 10 | | |
| 450 | 47.6 dB/100m | 25.5 | | 10.7 | 17.0 | 100 ± 22 | 100 ± 10 | | |

Voltage

UL Voltage Rating 300 V (CMR)

Mechanical Characteristics

Temperature

| UL Temperature | Operating | Installation | Storage |
|-----------------------|----------------|--------------|----------------|
| 75°C | -20°C To +75°C | 0°C To +50°C | -20°C To +75°C |

Bend Radius

| Stationary Min. | Installation Min. |
|-----------------|-------------------|
| 0.5 in (13 mm) | 2.0 in (51 mm) |

Max. Pull Tension: 40 lbs (18 kg)

Bulk Cable Weight: 20 lbs/1000ft

Standards and Compliance

| Environmental Suitability: | Riser, Indoor |
|---------------------------------------|---|
| Sustainability: | Product Lens™, Environmental Product Declaration (EPD) Available |
| Flammability / Reaction to Fire: | UL 1666 Riser, FT4, IEC 60332-1-2 |
| CPR Compliance: | CPR Euroclass: Eca |
| NEC / UL Compliance: | Article 800, CMR |
| CEC / C(UL) Compliance: | CMR |
| ICEA Compliance: | S-90-661 |
| IEEE Compliance: | IEEE 802.3bt Type 1, Type 2, Type 3 |
| NEMA Compliance: | NEMA WC-63.1 |
| Data Category: | Category 5e |
| TIA/EIA Compliance: | ANSI/TIA-568.2-D Category 5e |
| Third Party Performance Verification: | Category 5e |
| ISO/IEC Compliance: | ISO/IEC 11801-1, IEC 61156-5 |
| CENELEC Compliance: | Segregation class according EN50174-2 = a |
| European Directive Compliance: | EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), REACH, EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE), REACH: 2020-01-16 |
| UK Regulation Compliance: | UKCA Mark |
| APAC Compliance: | China RoHS II (GB/T 26572-2011) |
| Plenum Number: | 1701A |

Product Notes

| Notes: Information Only. Print Includes Descending Footage Markings from Max. Put-Up Length to 0. | Electrical values are expected performance based on cable testing and representative performance within a typical Belden system. Values above 350 MHz ard information Only. Print Includes Descending Footage Markings from Max. Put-Up Length to 0. | are for Engineering |
|---|--|---------------------|
|---|--|---------------------|

History

Update and Revision: Revision Number: 0.526 Revision Date: 04-29-2024

Part Numbers

Variants

| Item # | Color | Putup Type | Length | UPC/EAN | Footnote |
|----------------|-------|------------|----------|--------------|----------|
| 1700A 0101000 | Black | Reel | 1,000 ft | 612825121589 | С |
| 1700A 010U1000 | Black | UnReel | 1,000 ft | 612825121572 | |

| 1700A 006U1000 | Blue | UnReel | 1,000 ft | 612825121503 | |
|----------------|--------|--------|----------|---------------|---|
| 1700A 0061640 | Blue | Reel | 1,640 ft | 612825121527 | С |
| 1700A 0063000 | Blue | Reel | 3,000 ft | | С |
| 1700A.00305 | Gray | Reel | 305 m | 8719605003881 | |
| 1700A 008U1000 | Gray | UnReel | 1,000 ft | 612825121534 | |
| 1700A F2V1000 | Gray | Reel | 1,000 ft | 612825121398 | С |
| 1700A F2VU1000 | Gray | UnReel | 1,000 ft | 612825121381 | |
| 1700A F2V3000 | Gray | Reel | 3,000 ft | 612825121404 | С |
| 1700A 0051000 | Green | Reel | 1,000 ft | 612825121497 | С |
| 1700A 005U1000 | Green | UnReel | 1,000 ft | 612825121480 | |
| 1700A 0031000 | Orange | Reel | 1,000 ft | 612825121459 | С |
| 1700A 003U1000 | Orange | UnReel | 1,000 ft | 612825121442 | |
| 1700A B021000 | Purple | Reel | 1,000 ft | 612825121374 | С |
| 1700A B02U1000 | Purple | UnReel | 1,000 ft | 612825121367 | |
| 1700A 0021000 | Red | Reel | 1,000 ft | 612825121428 | С |
| 1700A 002U1000 | Red | UnReel | 1,000 ft | 612825121411 | |
| 1700A 0023000 | Red | Reel | 3,000 ft | 612825121435 | С |
| 1700A 0091000 | White | Reel | 1,000 ft | 612825121558 | С |
| 1700A 009U1000 | White | UnReel | 1,000 ft | 612825121541 | С |
| 1700A 0093000 | White | Reel | 3,000 ft | 612825121565 | С |
| 1700A 004U1000 | Yellow | UnReel | 1,000 ft | 612825121466 | |

© 2024 Belden, Inc

All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.